FIG 1

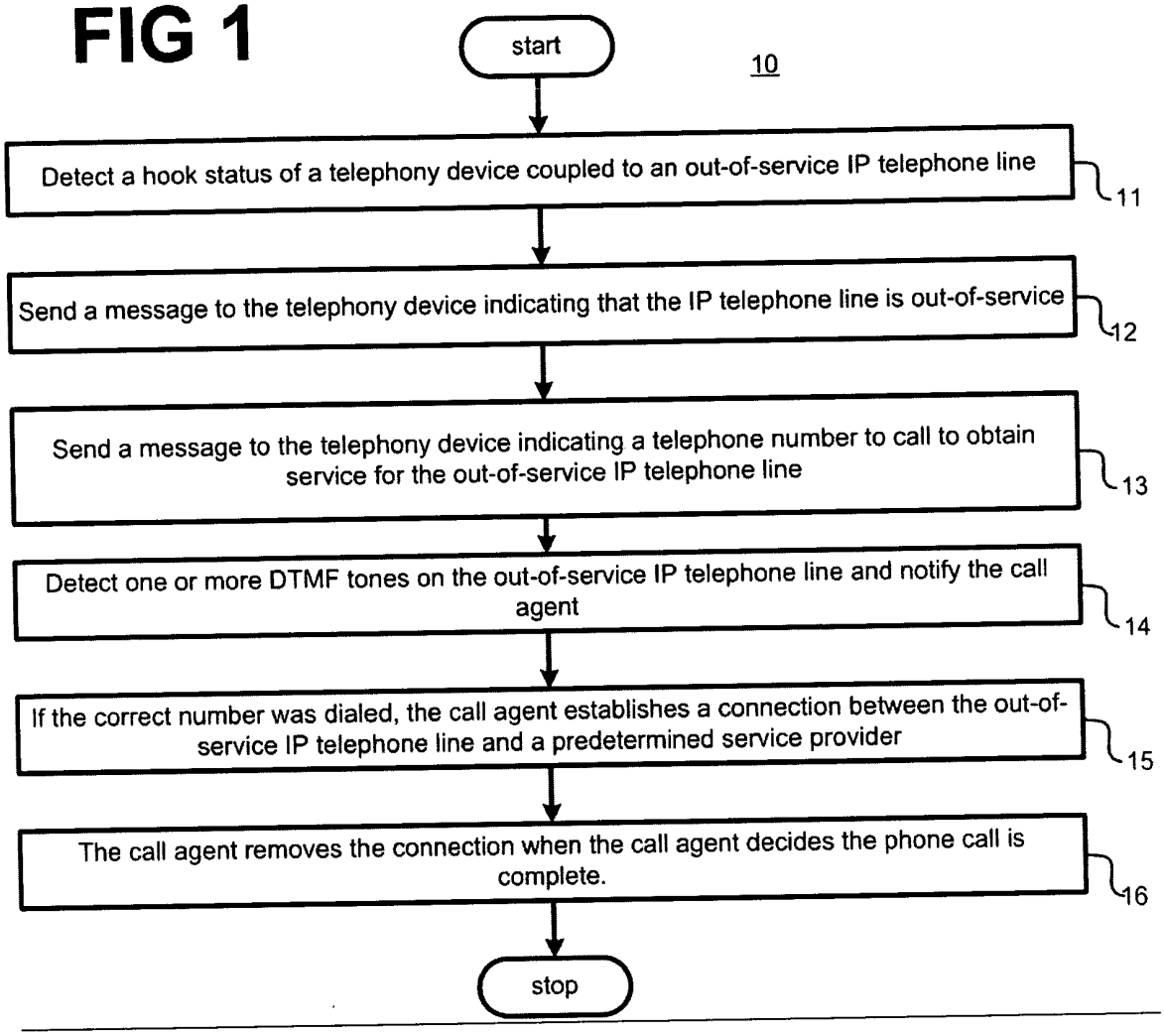

start
10
Detect a hook status of a telephony device coupled to an out-of-service IP telephone line
11
Send a message to the telephony device indicating that the IP telephone line is out-of-service
12
Send a message to the telephony device indicating a telephone number to call to obtain service for the out-of-service IP telephone line
13
Detect one or more DTMF tones on the out-of-service IP telephone line and notify the call agent
14
If the correct number was dialed, the call agent establishes a connection between the out-of-service IP telephone line and a predetermined service provider
15
The call agent removes the connection when the call agent decides the phone call is complete.
16
stop

FIG 2 20

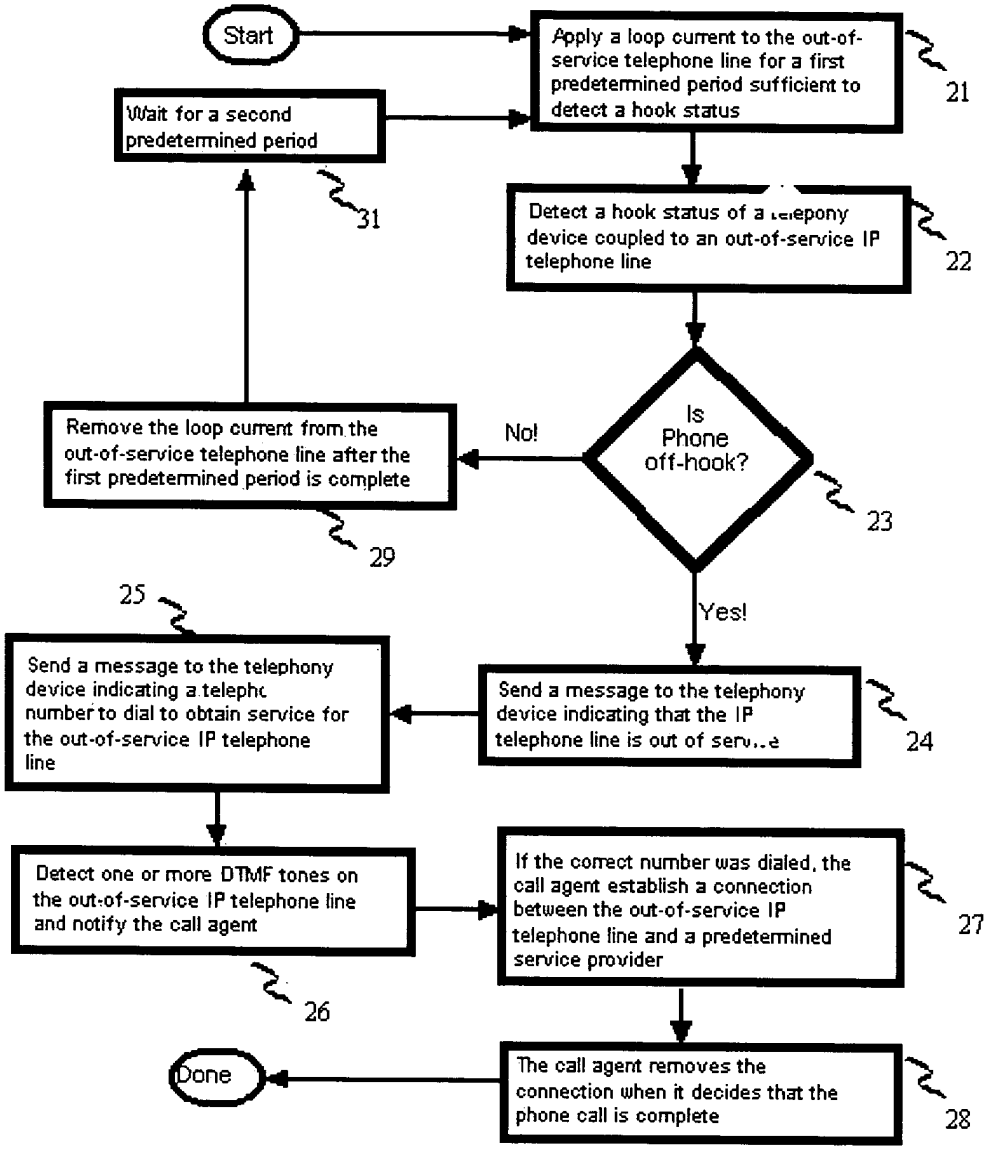
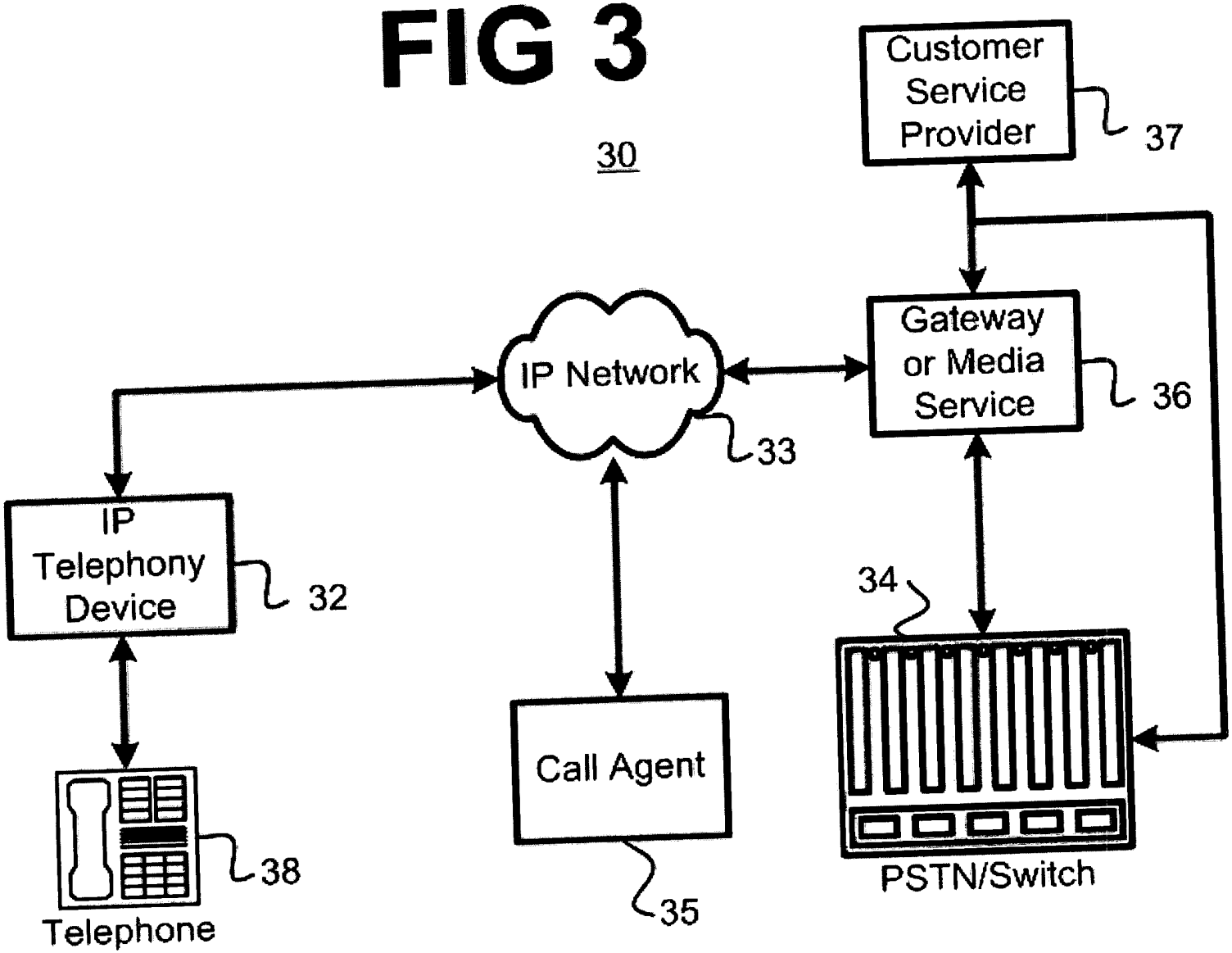

Start
Apply a loop current to the out-of-service telephone line for a first predetermined period sufficient to detect a hook status
21
Wait for a second predetermined period
31
Detect a hook status of a telephony device coupled to an out-of-service IP telephone line
22
Is Phone off-hook?
23
No!
Remove the loop current from the out-of-service telephone line after the first predetermined period is complete
29
Yes!
Send a message to the telephony device indicating that the IP telephone line is out of service
24
25
Send a message to the telephony device indicating a telephone number to dial to obtain service for the out-of-service IP telephone line
Detect one or more DTMF tones on the out-of-service IP telephone line and notify the call agent
26
If the correct number was dialed, the call agent establish a connection between the out-of-service IP telephone line and a predetermined service provider
27
The call agent removes the connection when it decides that the phone call is complete
28
Done

FIG 3


30
Customer Service Provider
37
IP Network
33
Gateway or Media Service
36
IP Telephony Device
32
34
Call Agent
35
PSTN/Switch
38
Telephone

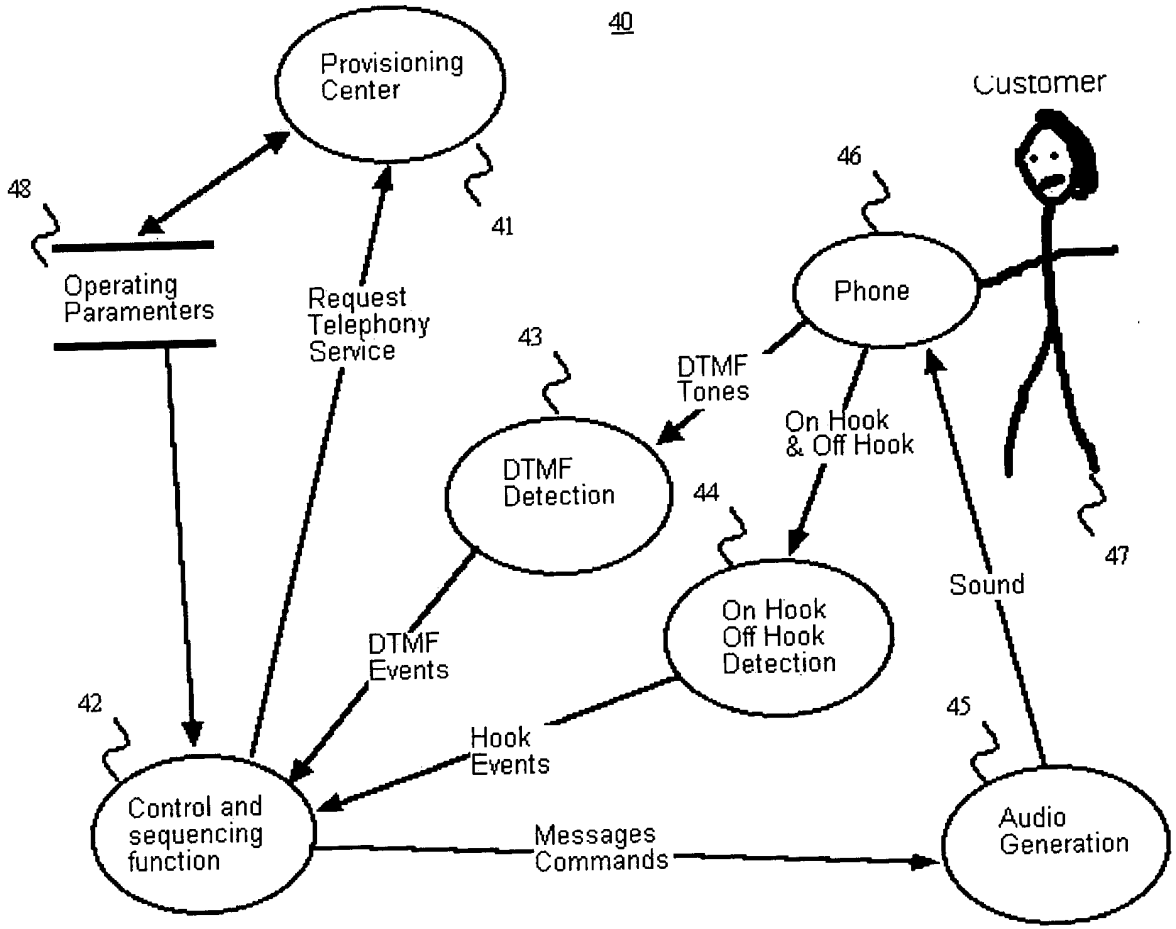


FIG 4 – System Data Flow Diagram

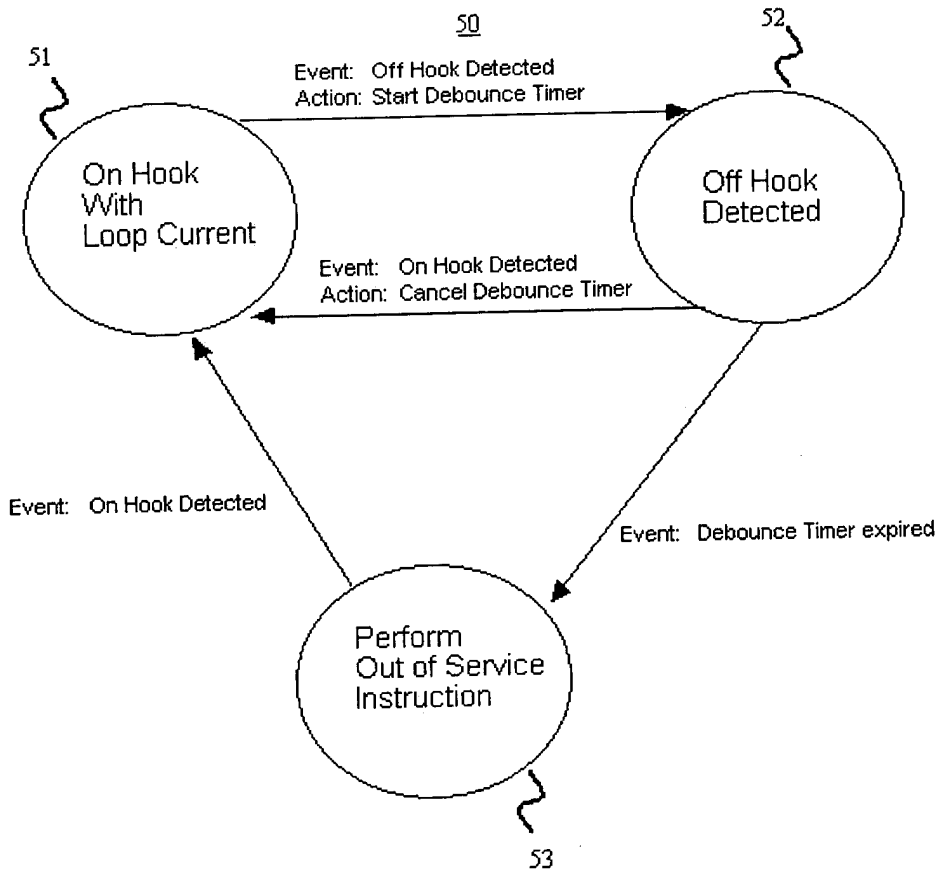


FIG 5 – Normal Hook Status Detection State Machine

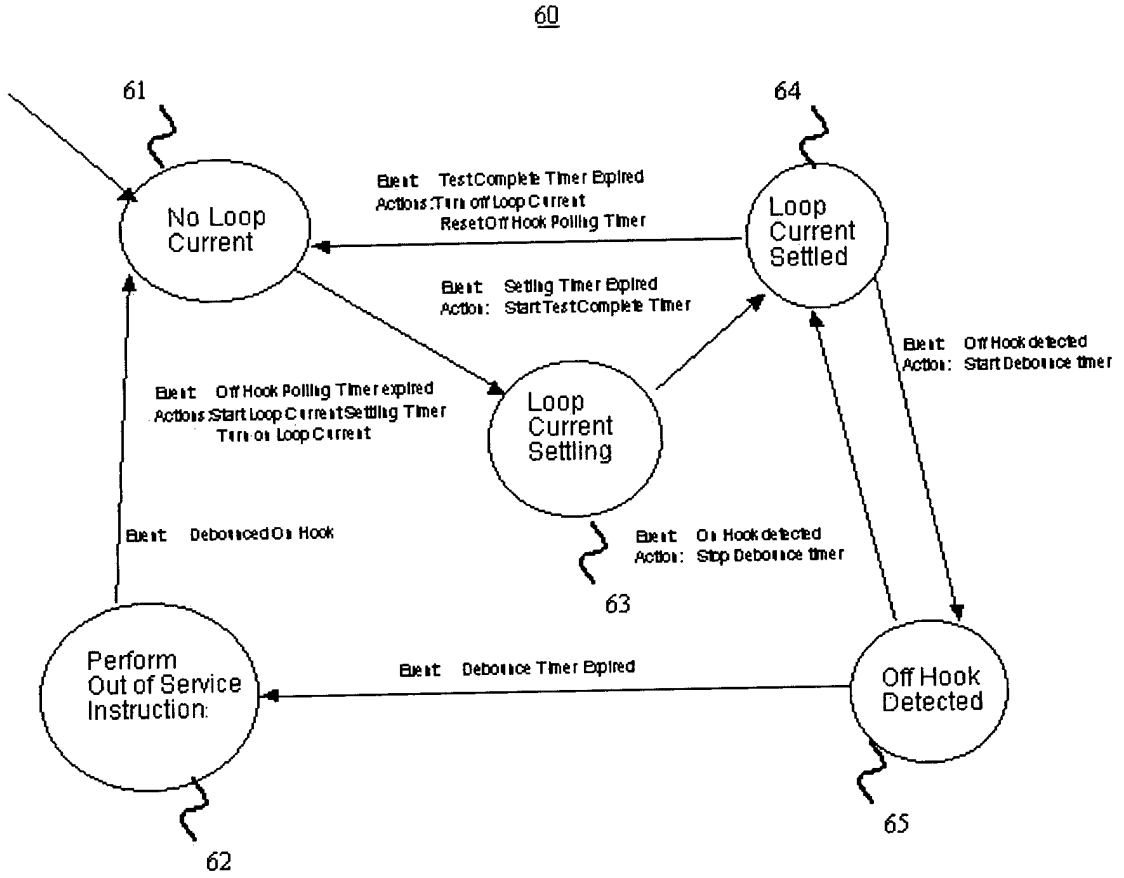


FIG 6 – Power Savings Hook Status Detection State Machine